

CLAIMS:

1. A contrast agent comprising solid metal nano-particles having an acoustic impedance above $35 \cdot 10^5 \text{ g/cm}^2\text{s}$.
2. The contrast agent of claim 1, having an acoustic impedance of above
5 $50 \cdot 10^5 \text{ g/cm}^2\text{s}$.
3. The contrast agent of claim 1, wherein said metal nano-particles have a diameter of between 1 nm and 100 nm.
- 10 4. The contrast agent of claim 1, wherein said metal nano-particles have a diameter of between 1 nm and 50 nm.
5. The contrast agent of claim 1, wherein said metal is non-magnetic.
- 15 6. The contrast agent of claim 1, wherein said metal is selected from the group consisting of gold, silver, platinum, palladium, tungsten or tantalum, rhenium, or a mixture thereof.
7. The contrast agent of claim 1, wherein said metal is a noble metal.
- 20 8. The contrast agent of claim 1, which further comprises one or more coatings.
9. The contrast agent of claim 8, wherein said coating comprises natural or
25 synthetic carbohydrates, synthetic polyaminoacids, or physiologically tolerable synthetic polymers or derivatives thereof.

10. The contrast agent of claim 8, wherein said one or more coating comprises a therapeutic agent.

11. The contrast agent of claim 1, characterized in that one or more bio-
5 target-specific molecules are attached to the surface of said metal particle.

12. The contrast agent of claim 11, wherein said bio-target-specific molecule recognizes a target which is selected from the group consisting of a cellular marker, a pathogen and a foreign and/or toxic agent.

10

13. The contrast agent of claim 11, wherein said bio-target-specific molecule is an antibody or a fragment thereof.

14. Use of a metal nano-particle according to any one of claims 1 to 13 in the
15 manufacture of an ultrasound contrast agent.

15. A method of diagnosis comprising administration of a contrast agent according to any of the claims 1 to 13 to an animal or human patient, and performing an ultrasound imaging examination of the animal or human.

20

16. A method of imaging an isolated tissue sample or organ, which method comprises administering the contrast agent according to any of the claims 1 to 13 to said tissue sample or organ and performing an ultrasound imaging examination thereof.